

In the Claims

1. (Currently Amended) A method for machine-milking a dairy animal without substantially increasing milking time, the method comprising the steps of:

defining a standard pressure changing phase duration in which no changes to pressure changing speed rates are made;

generating with a pulsator a pulsed vacuum in a pulse chamber of a teat cup by altering the vacuum in the pulse chamber during pressure changing phases;

controlling the pulsator to reflect a pressure curve for the duration of one pressure changing phase having a first pressure changing speed rate and a second pressure changing speed rate, two pressure changing speed rates to induce a first speed of liner movement during the first pressure changing speed rate and induce a second speed of liner movement during the second pressure changing speed rate; and controlling the pulsator to retain retaining the total duration for the pressure changing phase, with the ~~two~~ first and second pressure changing speed rates, ~~to not~~ substantially exceed to a duration that is insignificantly longer than the defined standard pressure changing phase duration.
2. (Currently Amended) The method according to claim 1, wherein the step of controlling the pulsator to reflect a pressure curve includes the step of:

adjusting the pulsed vacuum during the pressure changing phase.
3. (Currently Amended) The method according to claim 1, wherein the step of controlling the pulsator to reflect a pressure curve includes the step of:

controlling the pulsed vacuum during the ventilation phase.

4. (Currently Amended) The method according to claim 1, wherein the step of controlling the pulsator to reflect a pressure curve includes the step of:

controlling the pulsed vacuum during the evacuation phase.

5. (Currently Amended) The method according to claim 1, and further comprising the step of:

changing the pressure changing speed rates of the pulsator substantially continuously.

6. (Canceled)

7. (Currently Amended) The method according to claim 1, wherein the step of controlling the pulsator to reflect a pressure curve comprises the steps of:
controlling a first stage and a subsequent stage of a ventilation phase such that the pressure changing speed rate in the first stage is substantially flatter than in the subsequent stage.

8. (Currently Amended) The method according to claim 1, wherein the step of controlling the pulsator to reflect a pressure curve includes the steps of:
controlling a first stage and a subsequent stage of the evacuation phase such that the pressure changing speed rate in the first stage is substantially steeper than in the subsequent stage.

9. (Currently Amended) The method according to claim 1, and further comprising the step of:

shifting from one pressure changing speed rate of the pulsator to another pressure changing speed rate of the pulsator occurs while the pressure in the pulse chamber when a liner is in contact with an animal's teat.

10. (Currently Amended) The method according to claim 1, ~~and further comprising~~
wherein the step of: controlling the pressure curve for the duration of the pressure changing phase comprises the step of:
operating a pulsator valve ~~used in generating~~ to generate the pulsed vacuum.
11. (Previously Presented) The method according to claim 10, and further comprising the step of:
varying a free flow vacuum resistance between the teat cup and the pulsator valve.
12. (Previously Presented) The method according to claim 10, and further comprising the step of:
changing a valve chamber cross-section of the pulsator valve to vary vacuum in the chamber.
13. (Previously Presented) The method according to claim 10, and further comprising the step of:
adjusting a valve chamber cross-section of the pulsator valve in multiple stages.
14. (Previously Presented) The method according to claim 10, and further comprising:
continuously changing a valve chamber cross-section of the pulsator valve.
15. (Previously Presented) The method according to claim 12, and further comprising the step of:
maintaining a pulsator valve body of the pulsator valve in a floating position in at least one stage of the pressure changing phase.

16. (Previously Presented) The method according to claim 12, and further comprising the step of:

maintaining a pulsator valve body of the pulsator valve in a variable floating position in at least one stage of the pressure changing phase.

17. (Currently Amended) The method according to claim 1, and further comprising the steps of:

measuring pressure in the pulse chamber; and
controlling a pulsator adjusting unit based on the pressure measurement.

18. (Currently Amended) A pulsator for a milker unit for milking an animal for alternatively connecting a vacuum source and a pressure source to a pulse chamber of at least one teat cup, the pulsator comprising:

a controller for a pulsator valve for alternatively connecting the vacuum source and the pressure source to the pulse chamber of the teat cup to reflect adjusting a pressure-time curve during a pressure changing phase having two pressure changing speed rates a first pressure changing speed rate and a second pressure changing speed rate, to induce a first speed of liner movement during the first pressure changing speed rate and a second speed of liner movement during the second pressure changing speed rate; wherein the duration of the pressure changing phase does not exceed is insignificantly longer than a duration of a pressure changing phase of a predetermined pressure changing phase using no controlled changes in pressure changing speed rate.

19. (Canceled)

20. (Previously Presented) The pulsator according to claim 18, and further comprising:

- a timing element for adjusting the duration of a stage of a pressure changing phase.
21. (Currently Amended) The pulsator according to claim 18, wherein the controller controls the pulsator valve to reflect a pressure curve during the ventilation phase.
22. (Currently Amended) The pulsator according to claim 18, wherein the controller controls the pulsator valve to reflect a pressure curve during the evacuation phase.
23. (Currently Amended) The pulsator according to claim 18, ~~and further comprising:~~ wherein ~~a~~ the pulsator valve having comprises: a valve chamber having a variable valve chamber cross-section, ~~the pulsator valve being in communication with the controller~~.
24. (Currently Amended) The pulsator according to claim 23, wherein the valve chamber cross-section is variable in a single stage.
25. (Previously Presented) The pulsator according to claim 23, wherein the valve chamber cross-section is variable in a plurality of stages.
26. (Currently Amended) The pulsator according to claim 18, ~~and further comprising:~~ wherein ~~a~~ valve and the pressure-time curve of the pressure changing phase is adjustable in dependence on a pulsator valve characteristic ~~of the valve~~.
27. (Previously Presented) The pulsator according to claim 18, and further comprising: a pilot valve in communication with the controller; and a main valve in communication with the pilot valve.
28. (Previously Presented) The pulsator according to claim 18, and further comprising: a direct valve in communication with the controller.
29. (Canceled)
30. (Canceled)

31. (Previously Presented) The pulsator according to claim 23, wherein the valve chamber defines a plurality of cross-sections.
32. (Previously Presented) The pulsator according to claim 18, and further comprising:
a nozzle in communication with the controller.
33. (Currently Amended) The pulsator according to claim 18, ~~and further comprising:~~
~~a wherein the pulsator valve is in communication with the controller, and the pulsator valve defining defines a pulsator valve chamber; and the pulsator further comprises~~
a valve closing element disposed in the pulsator valve chamber for movement therein.
34. (Canceled)